Informality: Engine of Structural Transformation ? The Case of Francophone Africa [1]

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Introduction

The informal sector has a major role in economy-wide structural transformation. First, because it is the largest employer in sub-Saharan Africa. Second, because it produces half or more of total value added in poor African countries. And third, because the low productivity observed in informal activities -- as compared to formal activities in the same country – indicate that higher returns could be earned by the factors there employed.

This chapter reviews the following questions : Can informal firms drive Africa's transformation ? What gives rise to informality and what kind of jobs does it create ? How does the large informal economy influence structural transformation ? How can we improve the economic returns to factors employed in the informal sector ?

The main messages include the following : Relative returns to factors in the urban and rural sectors in Africa have given rise to substantial rural-urban migration, where employment opportunities for migrants and non-migrants alike are overwhelmingly in the informal economy. Thus the informal sector is already the draw for transformational outmigration from agriculture; the main challenge is the modernization of informal economic activity. The informal sector is quite diverse, with a strong majority of small subsistence firms, but also an influential layer of large, sophisticated, though still informal firms. These informal actors represent a large cadre of clients for business services and social services, but experience difficult relations with Government and weak institutional support. Policy should focus on what constrains faster modernization of the informal economy and thus inhibits access to the benefits of modernity, including higher productivity. In particular, policies that concentrate rents into a small number of hands are likely to raise factor costs for formal firms and in turn reduce the incentives for modern, international firms to provide an engine of modernization for the informal economy.

Much of the data used in this paper is drawn from a dataset compiled through extensive firm surveys in Francophone Africa. Following an approach that takes the heterogeneity of the sector into account, we define the informal economy as a continuum and include in our sample the different segments of the informal sector spectrum. We then use a stratified sampling strategy, obtained by combining the different levels of informality (small informal, large informal, formal) and the different sectors of activity (commerce, other services, industry). The base for the sampling is the total population of firms corresponding to different tax regimes. According to the tax regime to which the company belongs, we distinguish:

a) the subset of firms subject to regular taxation,
b) the subset of firms subject to the presumptive lump sum tax plan,
c) the subset of all other firms that are either unknown to tax records or are not subject to any of the above regimes.

From these subsets, we have drawn a stratified sample of firms in the industry, trade and services sectors (see Mbaye et al., 2015 for more details). This approach has been used in different periods of time to gather information on formal and informal firms in West and Centre Africa. A narrower sample of firms with similar characteristics was drawn in each of the cities of Dakar and Cotonou, and administered a version of the questionnaire centered on value chains and the patterns and magnitudes of interactions between small informal and larger formal firms.

The informal economy

As has been well-documented in sub-Saharan Africa, the informal economy is highly diverse (Chen 2006, Benjamin and Mbaye 2012, Benjamin et al. 2014). It spans a great variety of businesses covering the full spectrum from subsistence, self-employment and household enterprises to extensive networks of cross-border traders and large, sophisticated firms that are, nevertheless, informal in some significant respect. The strong heterogeneity among informal firms underlies the difficulty of providing a single definition of informality and the consequent approach of classifying firms according to a continuum of characteristics. Results from Benjamin and Mbaye (2012) confirm the importance of distinguishing the large from the small informal firms in describing behavior and identifying obstacles in the investment climate. While the vast majority of informal firms are very small, the large informal firms play a major role. A firm that chooses to be informal in a country with weak regulatory enforcement can grow quite large, and may have strong incentives to do so.

Firms—both formal and informal—need relationships of trust in order to secure inputs, get credit and market their products. When formal institutions fail to provide effective property rights, firms can to some extent internalize these relationships of trust if they are large enough. Sometimes, becoming 'large enough' can take the form of informal networks, such as informal religious and ethnic networks. These can substitute for official institutions that should (but often fail to) support arms-length trading in the formal sector (Golub and Hanson Meyer, 2012).

Employment shares

As a whole, the informal sector employs over half the total work force and by some estimates creates 90 percent of new jobs (Chen, 2001). As is apparent in the Table below, informal employment is an especially important factor in West Africa. Of particular significance is that the informal economy employs most of the workers from vulnerable groups, including women and youth. By and large, the informal sector allows open entry and becomes the place of employment for those leaving the agriculture sector – the core migration underlying structural transformation. Finally, the vast majority of small and micro enterprises operate in the informal economy.

Table 1: **Share of informal employment in total non agricultural employment (%)**

Regions/Countries/Years	2000-10
North Africa	**53.0**
Sub-Saharan Africa	**70.5**
West Africa	***73,6***
Benin	96.3
Burkina Faso	90.5

Guinea (1995)	86.7
Senegal (1984)	76.0
Central Africa	***85,4***
Cameroon	84.0
East Africa	***65,3***
Southern Africa	***62,3***
Latin America	**57.7**
South and South-East Asia	**69.7**

Golub and Hayat (2015)

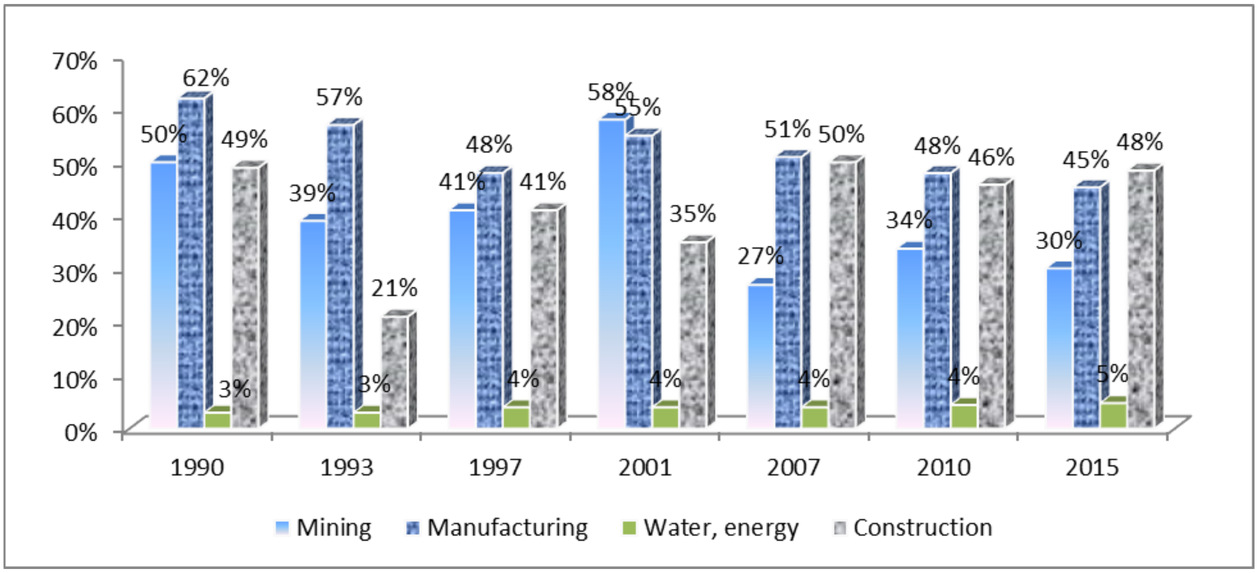
GDP shares

The informal sector varies across regions in its share of the total economy, but it has a significant role in the economic development of all African countries. Informality has been shown across regions to be associated with low productivity, and in one informative statistic, the informal sector is shown to have a low share in high income countries, while counting for as much as 70 percent of low income economies in Africa (Benjamin et al., 2014).

Inevitably, given their lower productivity, the contribution of informal workers to GDP is less than proportional to their numbers. Agriculture[2] in Senegal is a case in point: despite employing more than 70% of total labor force, its share of GDP is as low as 10%. Most francophone West African countries make estimates of the share of GDP contributed by informal producers in each sector. Below are the estimates for Senegal, Burkina Faso and Benin in the secondary and tertiary sectors.

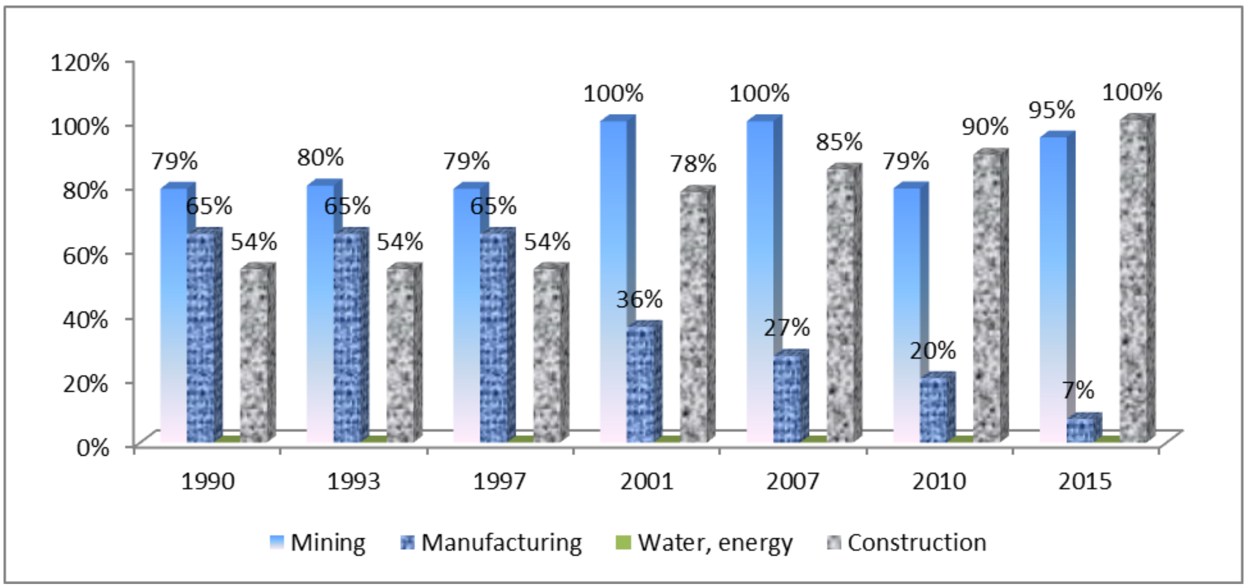
[2] Agriculture in Senegal is almost completely informal.

Figure 1 Share of value Added contributed by informal businesses in the secondary sector: Senegal



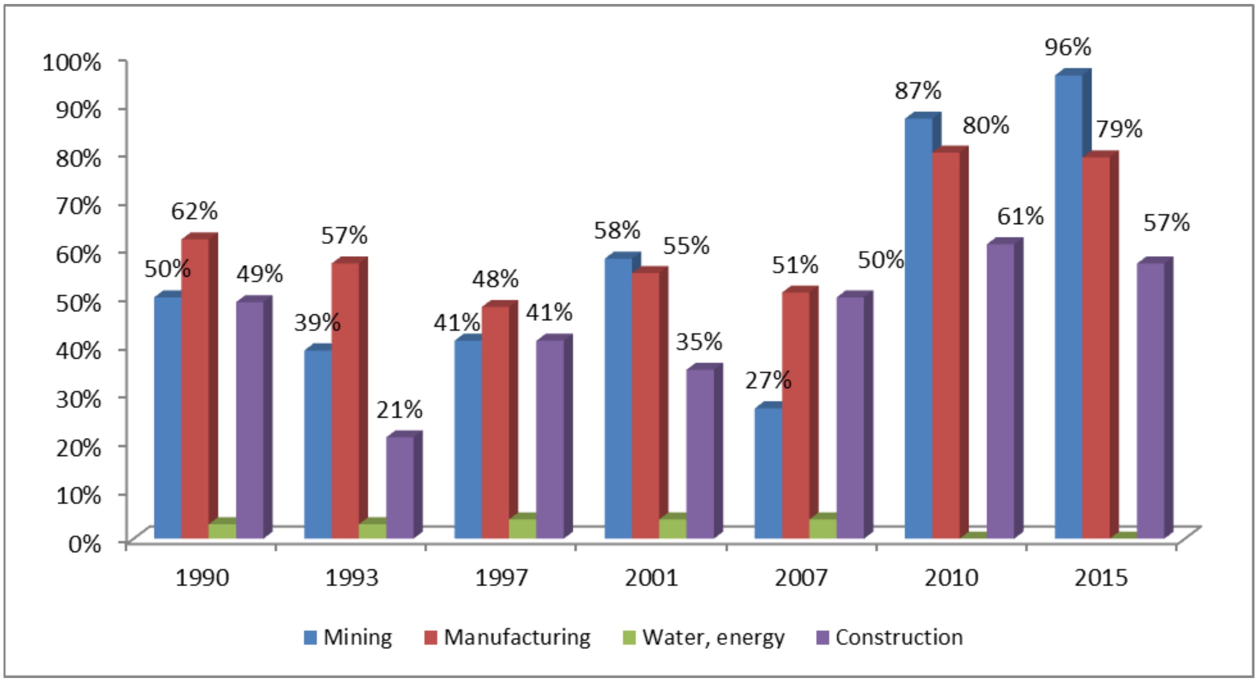
Sources: ANSD (2009) and estimation for authors for years 2010 and 2015

Figure 2: Share of value Added contributed by informal businesses in the secondary sector: Burkina Faso



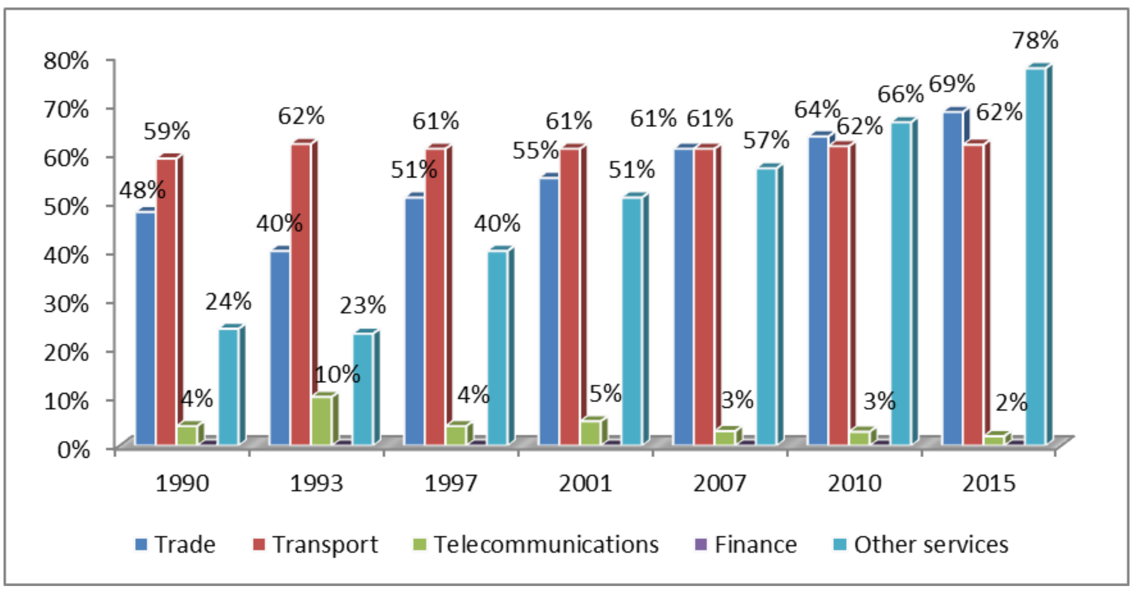
Source: INSD (2009) and estimation by authors for years 2010 and 2015

Figure 3: Share of value Added contributed by informal businesses in the secondary sector: Benin



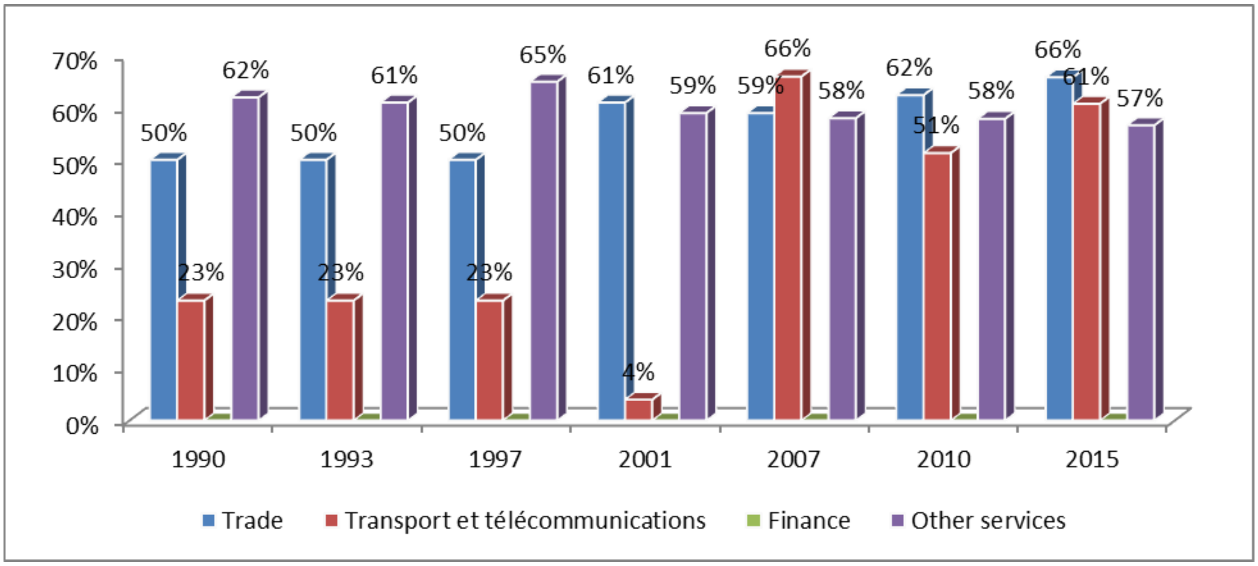
Source: INSAE (2009 et 2014) and estimation by authors for year 2015

Figure 4: Share of Value Added contributed by informal businesses in the tertiary sector: Senegal



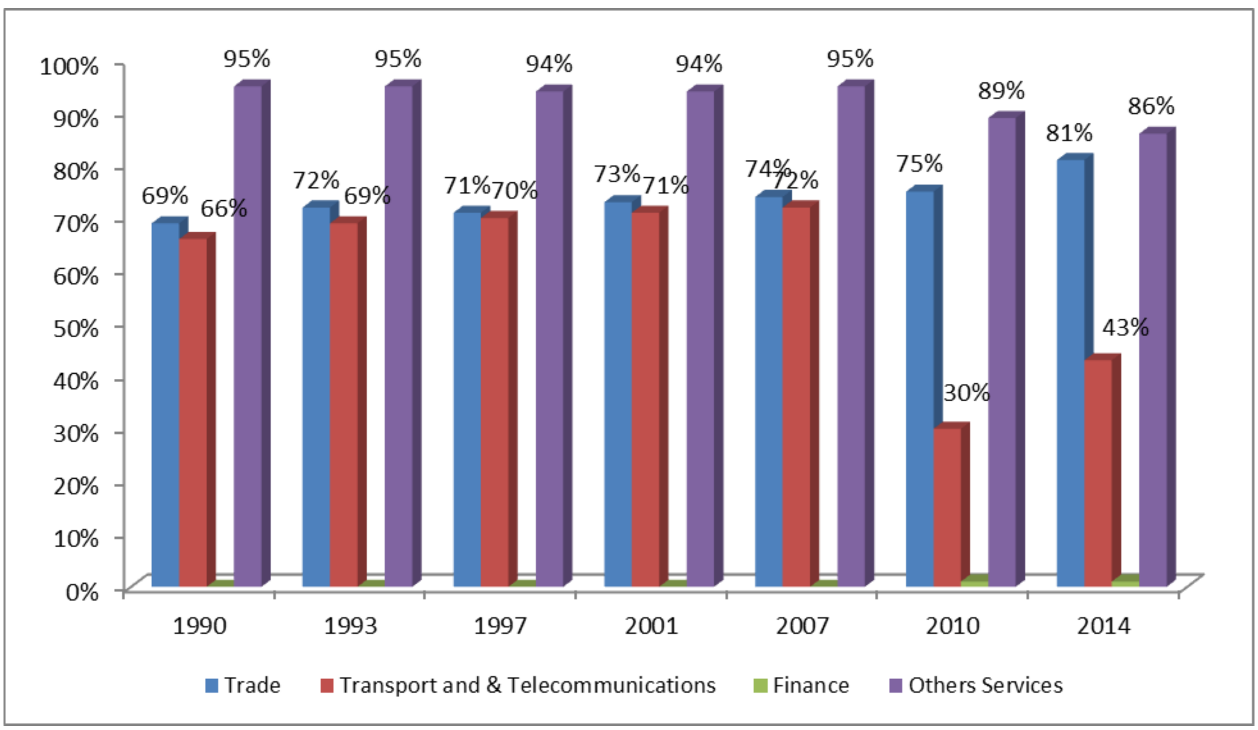
Sources: ANSD (2009) and estimation for authors for years 2010 and 2015

Figure 5: Share of Value Added contributed by informal businesses in the tertiary sector: Burkina Faso



Source: INSD (2009) and estimation by authors for years 2010 and 2015

Figure 6: Share of Value Added contributed by informal businesses in the tertiary sector: Benin



Source: INSAE (2009 et 2014) and estimation by authors for year 2015

Rural-urban Migration

Rural – urban migration is one of the most important determinants of the rise of informal labor force in the developing world. Becker (2007) documents the magnitudes of such internal migration trends in developing countries and finds them to be astonishingly high in some instances. For Africa, Kessides (2005) finds that urban population growth has almost doubled in 15 years, mostly due to such migrations. 'Despite the existence of positive marginal products in agriculture and significant levels of urban unemployment, rural-urban labor migration not only continues to exist, but indeed, appears to be accelerating.' (Harris and Todaro, 1970). Updating the Harris-Todaro model, Bhattacharya (2002) emphasizes: 'the Informal sector is not primarily a transit camp for disappointed migrants queuing for formal sector jobs, but a dynamic sector making substantial contributions to income and output, capable of attracting and sustaining labor in its own rights'.

Empirical evidence on Africa shows huge disparities in access to basic services (education, health, other infrastructural services) as well as low earnings opportunities that seem to be the most important drivers of rural-urban migration in the Africa Region. Fox and Gaal (2008) find that average profits in the services informal sector are higher than in agriculture by at least 50% in the majority of the African countries they studied.

Employment trends

The Table below shows Senegal's employment in certain broad sector categories for 2011 and 2015, with estimates based on household surveys. The figures reflect the fundamental trend of structural transformation; employment declines in agriculture, but it also declines in other tradable goods sectors, namely, other industries. In view of the tough global competition in goods, what is noteworthy is the sharp increase in employment in other services. Indeed, given the steep requirements for becoming a global competitor in manufactures, the performance in the other services sector will become increasingly important in Africa. This is also a sector where poor regulation of standards can be especially harmful for the success of informal operators.

Table 2: Senegal: Household survey employment estimates

EMPLOY		2011	2015
Agriculture	FORMAL	30478	8813
	INFORMAL	2051278	1265629
Other Industry	FORMAL	105242	45109
	INFORMAL	398378	274009
Trade	FORMEL	43872	67319
	INFORMEL	613698	630475
Other services	FORMEL	94419	196198
	INFORMEL	383689	1014924

Source: ANSD and estimation by authors

Using the above employment figures to make rough estimates of labor productivity, it appears that the advantage of formal productivity over informal is growing over time in most sectors.

Table 3: Senegal : Ratio of informal to formal sector productivity

	2011	2015
Agriculture	0,72804466	0,34120346
Other Industry	0,24357164	0,13632454
Trade	0,11885198	0,20726922
Other Services	0,33824389	0,25625211

Informal incomes

The lower productivity in the informal sector also translates into lower wages. The Table below shows substantial earnings differentials between formal wage-earners and informal earners, whose earnings are quite low. The earnings differentials between formal and informal actors are widely documented across countries and geographical regions, (Gasparini and Tornarolli, 2007) and confirmed in Africa by Benjamin and Mbaye (2012a). In their report on the progress of World's women, Chen et al. (2005) observe that no trickle-down effects stemming from improved development indicators for the world's emerging economies have benefitted the informal sector. In his study of South Africa, Braude (2005) found a huge discrepancy between informal sector and formal sector actors' levels of education, in favor of the latter, and similar discrepancies in earnings between the two categories of workers, albeit with substantial variance among informal workers.

Table 4: Monthly Salary per Person in the Formal and Informal sector in Three cities

<table>
<tr><th colspan="2" rowspan="2"></th><th colspan="4">Monthly salary per person</th></tr>
<tr><th>Less Than 35 000</th><th>35 000 to 200 0000</th><th>Over 200 000</th><th>Total</th></tr>
<tr><td rowspan="4">Dakar</td><td>Formal</td><td>2%</td><td>7%</td><td>91%</td><td>100%</td></tr>
<tr><td>Large Informal</td><td>6%</td><td>16%</td><td>77%</td><td>100%</td></tr>
<tr><td>Small Informal</td><td>41%</td><td>41%</td><td>18%</td><td>100%</td></tr>
<tr><td>Total</td><td>21%</td><td>25%</td><td>54%</td><td>100%</td></tr>
<tr><td rowspan="4">Cotonou</td><td>Formal</td><td>24%</td><td>47%</td><td>29%</td><td>100%</td></tr>
<tr><td>Large Informal</td><td>44%</td><td>48%</td><td>7%</td><td>100%</td></tr>
<tr><td>Small Informal</td><td>66%</td><td>25%</td><td>9%</td><td>100%</td></tr>
<tr><td>Total</td><td>51%</td><td>35%</td><td>14%</td><td>100%</td></tr>
<tr><td rowspan="4">Ouaga</td><td>Formal</td><td>40%</td><td>33%</td><td>27%</td><td>100%</td></tr>
<tr><td>Large Informal</td><td>28%</td><td>50%</td><td>22%</td><td>100%</td></tr>
<tr><td>Small Informal</td><td>66%</td><td>24%</td><td>10%</td><td>100%</td></tr>
<tr><td>Total</td><td>53%</td><td>31%</td><td>16%</td><td>100%</td></tr>
</table>

Source: Benjamin and Mbaye (2012)

Productivity

Productivity is critical to growth dynamics, and a large literature shows that there is a strong negative correlation between informality and productivity of firms in developing countries. Factors explaining such a divide are quite diverse. Gelb et al. (2009) emphasize the quality of the business environment and the enforcement of rules. Comparing countries in southern and eastern Africa, they confirm that formal sector firms are on average more productive than informal ones, but the gap between formal and informal firms is much less for east African countries than for southern African countries. They conclude that the relative weakness of the state in East Africa undermines the performance of formal firms and provides little incentive for strong informal firms to formalize.

Steel and Snodgrass (2008) find that the productivity differential between formal and informal firms is due mainly to unequal access to public services. La Porta and Shleifer (2008), using World Bank informal sector surveys, find that once they control for expenditure on inputs, human capital of the top manager and firm size, the fact of being unregistered has little additional impact on productivity. By contrast, Perry et al. (2007), find a residual negative impact of informality on productivity, even when other characteristics are controlled for.

Informal sector status is a handicap to the full development of enterprises, forcing them to operate without legal protection, and reducing their access to a wide range of ancillary public and private services such as credit, insurance, and government support. These factors may contribute to the productivity differences observed between formal and informal firms and indicate the potential gains from structural transformation.

The lower productivity observed for informal firms compared to formal ones has been documented in all regions of the world, and was confirmed for West Africa in Benjamin and Mbaye, 2012 and in Mbaye et al. 2015. What is particular about the results from West Africa is that they reflect the large heterogeneity of productivity across large and small informal firms. Informal firms were classified according to a continuum of characteristics, designating them as 'almost formal', 'completely informal', or one of several stages in between. Thus it was found not only that formal firms had higher productivity than informal ones, but that productivity was correlated with the degree of informality, where those closest to formality had the highest productivity and the completely informal had the lowest.

There is some empirical evidence to suggest that this wide range of productivity across firms can compound the difficulties of programs designed to raise productivity growth (Aghion, Bloom, Blundell, Griffith, and Howitt (2005). Some policies try to foster productivity growth by increasing competition as a means to promote efficiency. However, this approach may not be effective where there is a wide variance in firms' attributes and productivity.

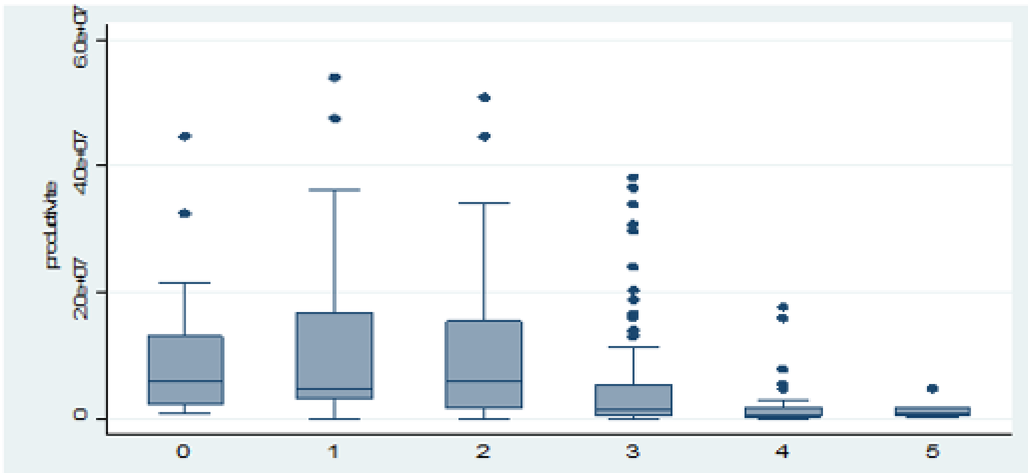
Mainstream literature uses a binary definition of the informal sector, classifying firms as either being formal or informal. Benjamin and Mbaye (2012) argue that there is no single criteria that can per se highlight all the various and complex features of informality. Instead, they use a variety of complementary criteria that need to be combined to come up with a comprehensive understanding of the phenomenon. Five of such criteria are considered in the analysis represented in the graphs below:

the size of activity, mobility of the work place, registration, taxation, and sincerity of accounts. Combinations of these criteria yield several levels of informality according to the number of defining ctiteria a given firm fails to meet. At the bottom of the ladder, we have firms who fail to meet any of the criteria defining formality, and which are completely informal. By contrast, firms which meet all criteria defining formality are completely formal. This segmentation of the informal sector helps us better understand the constraints and challenges attached to each segment of informality and design most appropriate policy response to address them.

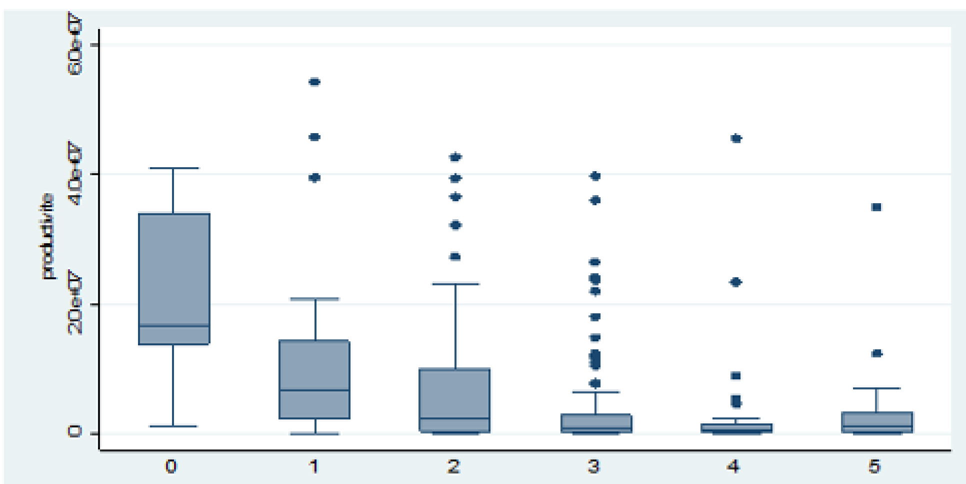
We assume that all informal enterprises exhibit at least one of the characteristics above. A dependent variable can thus be defined as 0 if the enterprise is formal, and then 1, 2, 3, 4, or 5 according to the level of informality of the enterprise. The results indicate significant productivity differentials between large and small informal firms in West Africa. Figures below display boxplots of the distribution of productivity levels for the formal and informal sectors, using the continuous definition of informality. The horizontal line crossing over each rectangle is median labor productivity.

Figure 7: Productivity and various levels of Informality

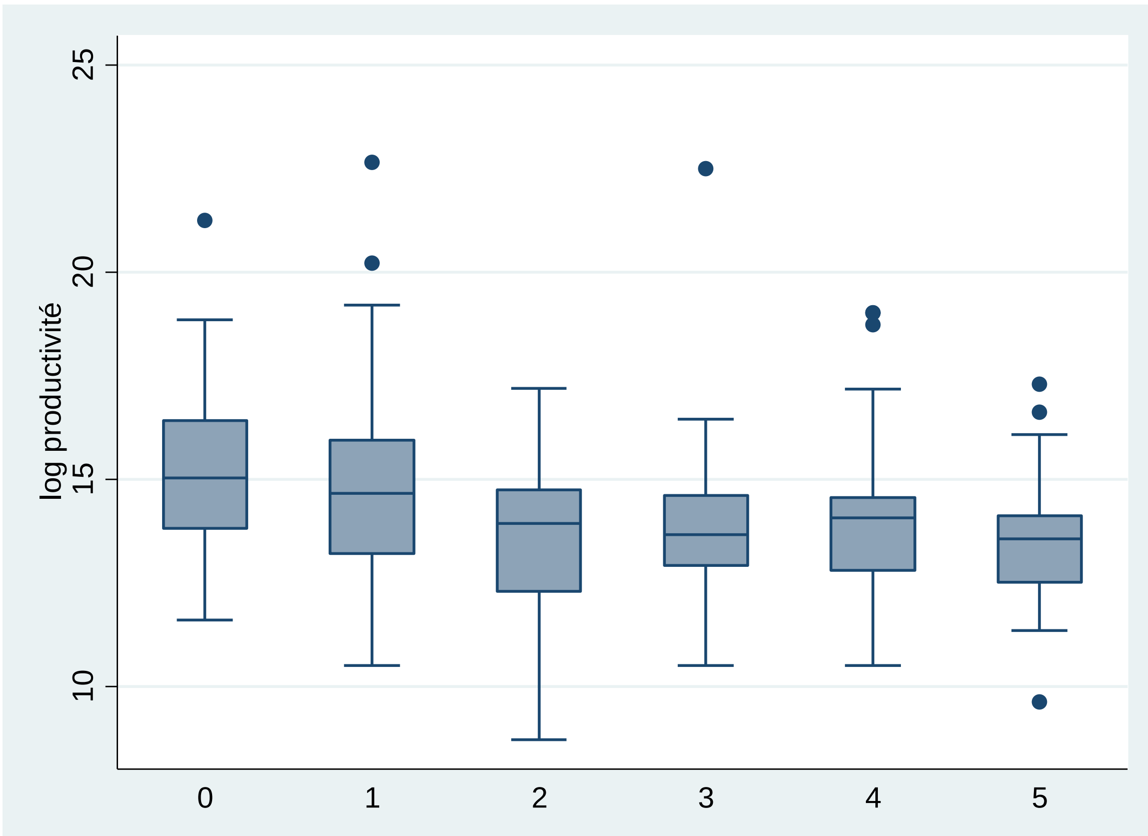
Dakar



b. Ouagadougou



CAMEROUN



Source: Benjamin and Mbaye (2012), Mbaye et al. (2015)

The results indicate that large informal firms have lower productivity than formal firms but the differential is minor, whereas the productivity gap between large and small informal firms is much greater. This result confirms the thesis of Gelb et al. (2009) in which the weakness of regulations drives many firms with a strong potential to grow to remain in refuge in the informal sector, reducing the productivity gap between the formal and informal sectors.

Benjamin and Mbaye (2012) also examine total factor productivity (TFP) in addition to labor productivity. TFP controls for capital intensity, yet they find the same positive correlation between TFP and formality as for labor productivity. This shows that capital intensity alone cannot explain differences in labor productivity.

Interviews and surveys in West Africa reveal that large informal firms, in particular, can have fragile structures. They manage large volumes of value added and temporary workers, but they are run like a family firm with a small number of permanent employees, no specialized departments, and seldom survive the death of the owner, or a rupture with political protectors.

The informal sector also relies on practices that hinder productivity growth. Their lower productivity may be influenced by the fragility of management structures, lack of transparency of their own accounts, long-established traditions based on well-entrenched control of territory and rents, and sub-optimal allocation of productive factors (including reliance on family sources for credit). Informality also prevents companies from acquiring modern management skills and worker training, limiting growth potential and access to the world market. Thus the informal sector contributes to an inimical investment climate for formal firms, particularly foreign investors. Further, the informal sector in general and large informal firms in particular are responsible for a substantial loss of fiscal revenues and narrowing of the tax base.

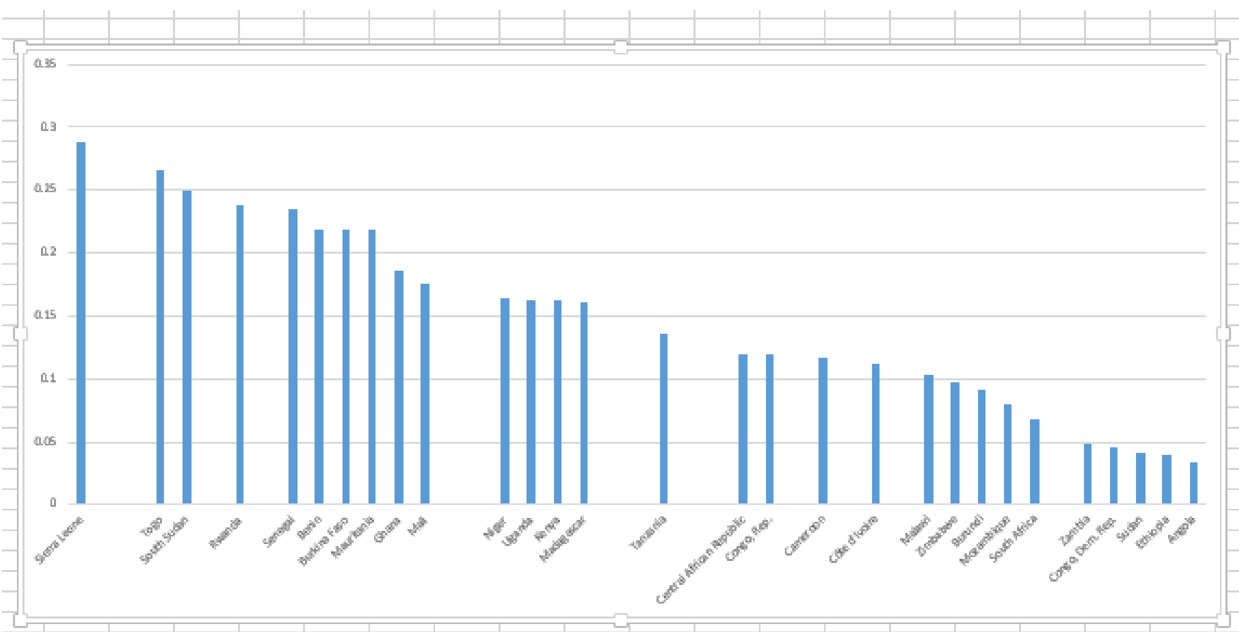
Factor costs in West Africa

The costs of doing business in Francophone Africa are sufficiently high to raise the question of how firms in the formal sector manage to survive. Indeed, without protection from various privileges in the form of tax or rule exemptions or protected market power, a formal business would hardly survive. Apart from the informal sector, the main surviving firms are those characterized by a high level of protected rents. Below, we provide some descriptions of factor costs that all contribute to make formal business almost impossible to uphold in francophone Africa.

-- *Infrastructure*

In francophone West Africa, businesses do not rate the quality of infrastructure services highly, according to the Investment Climate Assessment (ICA) surveys. The countries' ICA rankings are poor in terms of gaining access to electricity and in numbers of days of electrical outages per year. Moreover, the following Table shows the cost of electricity in francophone countries to be among the highest in Africa. The percentage of paved roads is also low.

Figure 8: Average Electricity Tariffs



Source: World Bank RISE data 2012-2014

Financial Capital

While commercial banks in West Africa are frequently seeking borrowers, potential clients in the informal economy show a strong preference for other sources of financing. Results from surveys of informal firms (Mbaye et al, 2015) indicate an overwhelming preference for using own savings, retained earnings, or loans from family members. Even informal firms that qualify for bank loans, or that have bank loans for some financing, prefer more personal sources for the majority of financing needs.

Bank loans are expensive for all clients in West Africa. Formal firms frequently pay 15 percent interest while informal firms report paying 20 percent or more. Further, most firms surveyed report difficulty in repaying loans, although this is more often the case for informal firms.

Labor

Formal wages are high in West Africa, in particular as compared to the major exporters of East Asia. Ceglowski et al. (2015) study African competitiveness vis à vis China and compare formal manufacturing wages in particular. They use data for manufacturing productivity and wages from the UNIDO Industrial Statistics database (INSTAT). They undertake cross-country comparisons of wages in the context of national productivity levels. In this case, a country's overall productivity level is proxied by GDP per capita. In comparison to per capita GDP, manufacturing wages are very high in sub-Saharan Africa relative to a number of other countries. In 2010 most Asian countries, including China, had average annual manufacturing wages roughly equal to per capita income. The same is true in other regions. In Sub-Saharan Africa, however, wages are typically several times per capita GDP. The only exception is Mauritius and to a lesser extent South Africa.

Table 5 **: Annual Manufacturing Wages, Selected Countries in Africa and Other Regions, current US$**

	2000		**2010**	
	Level in US$	***Relative to Per Capita GDP***	***Level in US$***	**Relative to Per Capita GDP**
Sub-Saharan Africa				
Burundi	NA	*NA*	*3261*	14.9
Cameroon	3088	*5.3*	*NA*	NA
Ethiopia	771	*6.3*	*807*	2.4
Ghana	1832	*4.9*	*NA*	NA
Kenya	2118	*5.2*	*2854*	3.6
Malawi	436	*2.8*	*2045*	5.7
Mauritius	3254	*0.8*	*6285*	0.8
Senegal	3680	*7.8*	*6450*	6.5
South Africa	7981	*2.6*	*12331*	1.7
Tanzania	2296	*7.5*	*1581*	3.0
North Africa				
Egypt	2028	*1.3*	*3453*	1.2
Morocco	4123	*3.2*	*6654*	2.4

Tunisia	4066	*1.8*	*5455*	1.3
Latin America				
Brazil	5822	*1.6*	*10918*	1.0
Colombia	4096	*1.6*	*4680*	0.8
Mexico	8048	*1.2*	*7310*	0.8
Asia				
Bangladesh	NA	*NA*	*680*	1.6
China	1016	*1.1*	*4770*	1.1
India	1356	*3.0*	*2619*	1.8
Indonesia	929	*1.2*	*1897*	0.6
Malaysia	4405	*1.1*	*6548*	0.7
Vietnam	NA	*NA*	*1727*	1.3
Eastern Europe				
Czech Rep.	3964	*0.7*	*12673*	0.7
Latvia	3689	*1.1*	*9191*	0.8
Poland	5829	*1.1*	*10162*	0.8

Source: Ceglowski et al. (2015)

Specific data for Senegal show that the highest wages are in Government – 228 euros per month -- and the second highest are in public enterprises – 205 euros per month. Formal private sector wages follow close behind at 189 euros, but informal sector wages are only a fraction of these formal wages at 59 euros (Golub and Hayat 2015).

High factor costs – Causes and consequences

It is not surprising that expensive infrastructure, high capital costs and high wages should lead to a large share of producers operating in the informal sector, where the main advantage is to pay lower wages and lower taxes. Indeed, given the internationally low competitiveness revealed by the cross-country wage comparisons, one might wonder who could afford to pay the high formal wages. Observation tells us that most formal firms are foreign multinationals who have no choice but to pay formal wages and formal taxes. Paying full fare for workers, including a disproportionate share of the wage tax bill, is the price for operating in the country without incurring any hostility from the Government. In turn, these high labor costs discourage FDI and reduce the number of foreign firms entering the country.

Even so, why operate in the country at all if costs are so high ? Research by Mbaye, Golub and English (2016) indicates that most formal firms benefit from some kind of protected rents, either in the form of protection from competing imports, protection from domestic competitors, monopoly rights to import key commodities, or privileged access to government contracts. [The traditional saying is: Governments tax elites and elites tax the rest through high prices.] The research also indicates that large informal firms often benefit from some kind of rent protection as well. In particular, where the regulatory regime distinguishes a legal, regulated segment of a sector, large informal operators may benefit from protected rights to exploit the unregulated segment. This can include informal rights to smuggling routes; protected rights to engage in untaxed retail commerce; or informal rights to supplement the rationed public transport (with vans or motorcycle taxis). In some cases, the informal participation of government officials in the business may help ensure this protection.

Two things of note regarding these observations: First, the rents associated with tapping into the aggregate consumption bundle, even in countries as poor as these, are worth the efforts of formal firms to capture a protected portion of them. Second, when certain firms have been allocated access to artificially high rents, labor will always demand its share (Azam, 2001)). Thus the high formal manufacturing wages may reflect overall protected rents in the sector.

This kind of rent distribution is not unusual in developing countries. For non-resource exporting countries, the rents derive from aggregate consumption. When a certain share is allocated to a small number of elite firms and their workers, adding high wages to the other expenses of formal operations, new entry of these kinds of formal or modern enterprises can be discouraged and the modern sector can stagnate. An interesting example can be found in the literature de-bunking the myth that the Dutch suffered from Dutch disease following the exploitation of natural gas fields in the 1960s and 70s. The subsequent stagnation of the traditional manufacturing sector in the Netherlands was found not to derive from a foreign exchange windfall, but rather from policies that raised social welfare benefits, leading to higher wage taxes and an economy-wide increase in labor costs (see Kojo, 2015 and Kremers, 1986). While the Dutch policy may have instigated an economy-wide labor cost increase, in West Africa, the high wages occur in the public sector and the formal private sector.

The message for entrepreneurs is clear: either cultivate and capture rents or operate in the informal sector. The message for multinational firms is also clear: do not come to these countries to manufacture with cheap labor, because the formal labor is not cheap. From the list in Table 5 above, only Mauritius, with manufacturing wages close to GDP/capita, or overall productivity, has a strong record as a manufacturing exporter, and Ethiopia only recently so. The message is also a familiar one in West Africa : control of rents is more lucrative than raising productivity.

Given the strong advantage of paying the lower, informal wage, it is understandable that formal firms hire people informally – off the books – in addition to their formally registered workers. Maintaining a formal veneer makes the company eligible for public contracts, cheaper credit, more reliable infrastructure, while informal hiring provides access to workers at a lower wage, and lower wage taxes. This occurs frequently in the construction sector where formal companies bid on projects, but informal workers provide much of the labor. Labor surveys in North Africa indicate that a majority of the people who report being informally employed are in fact working for formal companies (Gatti et al. 2011). Evidence from Central West Africa shows that formal firms are paying important shares of their workers at less than the official minimum wage. (See Table 6 below):

Table 6: Levels of wages in Cameroon

Percent by income range : below 28500, 28500 – 50000, etc; by formal, large informal small informal firms

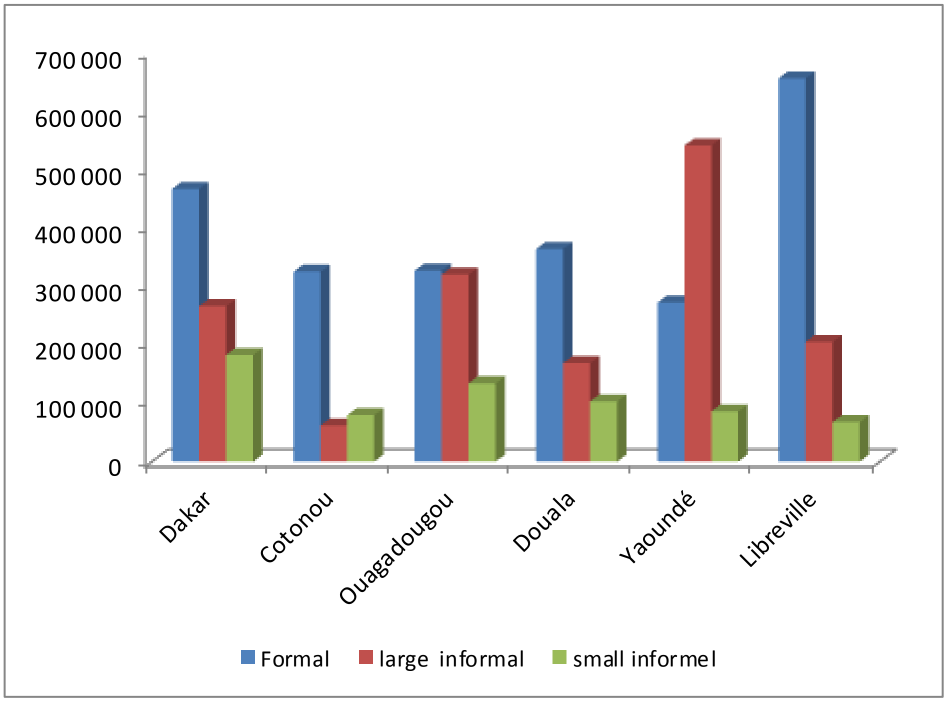
	Douala				Yaoundé			
Income range	Formal	Large Informal	Small informel	Total	Formal	Large informal	Small informal	Total
below 28 500 FCFA	0,6	8,2	19,9	5,9	3,1	3,8	26,3	10,7
[28 500, 50 000 [	5,8	20,4	19,9	10,2	12,3	11,5	25,7	16,6
[50 000, 75 000 [	13,4	24,5	26	17,3	14,7	19,2	15,2	15,1
[75 000, 100 000 [	9,1	20,4	13,8	11	14,1	3,8	9,9	12,2
[100 000, 200 000 [	21,6	8,2	19,4	20,2	19,6	19,2	16,4	18,5
[200 000, 400 000[	30,9	14,3	1	22,4	25,8	11,5	5,8	18,5
400 000 FCFA ou +	18,6	4,1	0	13	10,4	30,8	0,6	8,2
Total	100	100	100	100	100	100	100	100

Source: Mbaye et al. 2015

Consequences for worker welfare

The skewed distribution of wages shows how the returns to labor depend on the particular circumstances governing their jobs. High-paying public or formal sector jobs are protected, but also rationed. In the Graph below we can see that Libreville, Gabon – an oil exporter with the highest per capita GDP among the countries represented – also pays the highest wages to employees of formal firms. However, the employees of small informal firms in Libreville are paid no more than the corresponding employees in five other francophone African cities. Indeed, the returns to small informal employees shows the greatest degree of uniformity across locations. The wages paid by large informal firms seems to vary by country, perhaps with income level but also with degrees of protection.

Figure 9: Average wage by formal/informal status



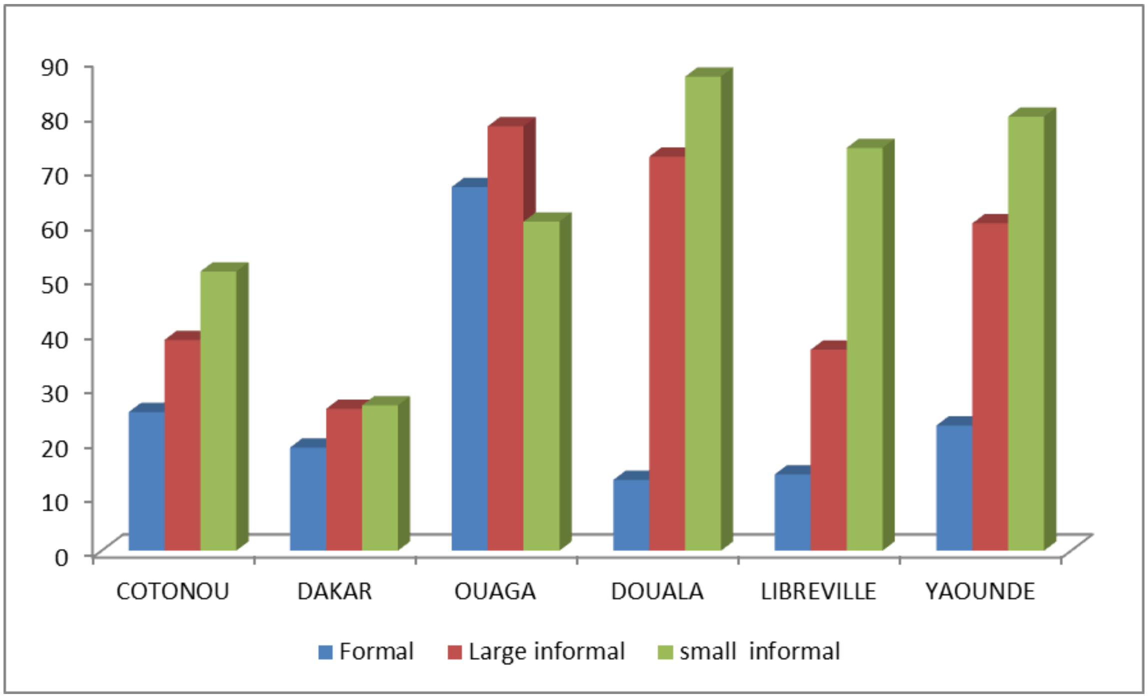
Source: Mbaye et al 2015

Consequences for productivity

As discussed above, research has abundantly shown that informality of firms is associated with lower productivity than formal ones, as are certain other variables. One relevant variable for productivity is the type of ownership --- self, joint, company or corporate. Self-employment is defined here as meaning a single regular employee who is also the owner. As is shown below, self-employment is found to have an independent negative impact on productivity.

It should be noted that in these surveys of francophone informal firms, size is defined according to value added and not according to numbers of employees. Some firms that are quite small in terms of employees can be large in terms of value added. Usually this combination is an indication that employees besides the owner are temporary, or are family members, and are not counted by the owner as regular employees. Thus instances of self-employment can be found across the spectrum of different firm sizes.

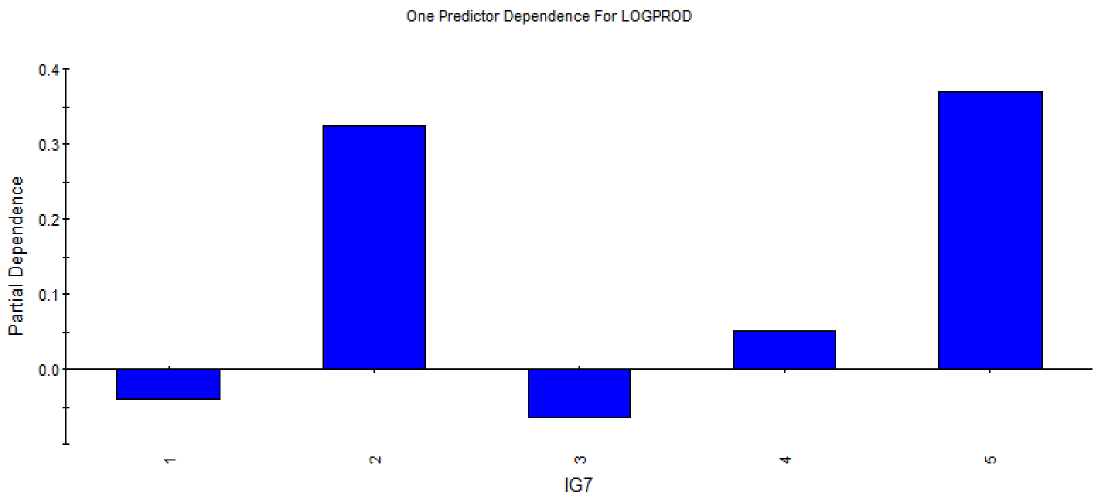
Figure 10: Self employment (% of firms)



Source: Mbaye et al. 2015

When we look at the relation between forms of firm ownership and productivity, we find that self-employment has an independent negative impact. The Graph below shows an analysis of single factor impact on productivity growth for Cameroon. This analysis uses a gradient boosting model which considers, ceteris paribus, the relationship between a change in the ownership variable and the corresponding change in labor productivity. Ownership is found to be correlated with productivity, where firms either owned by individuals or self-employed are found to be negatively linked to log-productivity, while incorporated companies show strong positive relationship to productivity. Thus informal firms are prone to an ownership structure with a negative contribution to productivity.

Figure 11: Informal sector and productivity. Contribution of I variable to productivity growth using partial dependence analysis



1 individual owner, 2 incorporated company, 3 self employed, 4owned by spouse or relative 5 other

Source: Benjamin, Gueye, Haughton, Mbaye, Tchakoute, and Tinga (2016)

Why formal firms are not better engines for jobs in the informal economy

Instances can certainly be found where formal firms serve to improve the fortunes of informal enterprises. However, the relations between formal and informal firms need to be examined in detail in order to understand the conditions most likely to make this happen, and how often this occurs. A 2016 survey of informal and formal firms in Senegal and Benin (Mbaye, Benjamin and Gueye, 2017) analyzed value chains between formal and informal firms in several sectors. They find that relations between formal and informal firms can sometimes be fiercely competitive, sometimes cooperative in the form of outsourcing, but seldom of a nature that contributes to progress and development in the informal economy.

The sectors where we observe the most formal/informal competition over market share are those where government policy – a ban, rule, tax or subsidy -- has created a kind of dual regulatory regime that is exploited by informal operators. In pharmaceuticals, formal quality standards allow room for informal products that may be cheaper, but lack quality control. Bans on the imports of used cars into Nigeria create opportunities for informal smuggling from Benin. Nigerian subsidies of gasoline lead to extensive smuggling into all neighboring countries, including Benin. While all these activities create jobs, the jobs are typical of informal commerce and do not appear to be a solid basis for development. And where the business relies on publicly protected rents, formal/informal competition over these rents squelches any incentives for collaboration that would allow formal firms to contribute to modernization of the informal.

Where we find formal firms subcontracting to the informal, it is largely to market products made by the formal firms. Multinationals hire locals to market fabric made abroad. Formal cement-makers hire informal companies to distribute their product. Multi-national phone companies hire locals to sell pre-pay phone cards to distribute access to the multinational's service. Again, those who have these jobs definitely prefer them over being unemployed. But they do not appear to convey strong advantages over traditional jobs in informal commerce.

The surveys in West Africa show that while big firms frequently sell products to small firms, a much smaller share buy from small firms. Thus, by and large, modern firms are not outsourcing production of their products to Africa, they are outsourcing marketing to sell their own products in Africa.

Table 7: Share of firms working with intermediaries (%)

city		Dakar	Cotonou
Firms using different size counterparts as clients		52,50%	33,33%
Share of firms selling to	Big enterprises	1,67%	12,50%
	Small enterprises	36,67%	21,67%
Appreciation of the trend of subcontracting over time	Increasing	64,52%	90,00%
	Decreasing	6,45%	2,50%
	Stable	16,13%	7,50%

Source: Mbaye, Benjamin, and Gueye (2016)

An examination of the sectors affected by subcontracting indicates that traditional activities in commerce and construction dominate.

Table 8 : Sectors affected by subcontracting

	Dakar	Cotonou
Insurance	3,33%	2,50%
Building and public work	16,67%	27,50%
Commerce	31,67%	42,50%
IT materials	1,67%	
Customs clearance	1,67%	
Kitchen utensils	3,33%	
Carpentry		12,50%
other	41,67%	15,00%
Total	100,00%	100,00%

Source: Mbaye, Benjamin, and Gueye (2016)

Among the more modern services, the IT sector is an area where the potential for outsourcing is huge. Indeed, in the business of providing wiring for Internet and developing and managing certain IT applications, there is room for major operators to subcontract to smaller ones. In the sub-region, most telephone companies are multinational corporations that coexist with a number of local actors in the IT business subsector, mainly SME's. In general, these SMEs are in the business of developing software applications, sales of computer hardware, computer wiring, computer network management, etc. They often complain that large operators do not give them enough work. Instead, large operators prefer to bring technicians on site from the parent company. Most SME IT managers interviewed in the context of firm surveys expressed their frustration at not having access to these contracts. According to them, there is a serious corruption problem with bribery in both public and the private sector bids. This can raise the market prices by up to 30%. They also note that politicians quietly get involved in these businesses and take personal advantage, by playing their connections in both the public and private sectors. At the same time, large telecom operators and some administrative officials blame the low capacity of local SMEs to properly execute the tasks suitable for subcontracting.

Implications for structural transformation

Structural transformation tracks the evolution of economies as workers migrate out of agriculture, many at first into manufacturing, and then, as manufacturing plateaus, systematically into services. Evidence shows (See Herrendorf, Rogerson and Valentinyi, 2013) that the plateau in manufacturing employment occurs at about the same Log of GDP per capita in today's developing countries as it did in developed economies. However, it does not seem to be occurring at the same respective degree of development or modernization. The levelling off, or even contraction of manufacturing in Africa is occurring at low levels of productivity and national income. (See Rodrik, 'Premature Deindustrialization', 2015.) The exodus from agriculture continues, but these migrating workers largely end up in low-productivity informal services and manufacturing, and connections to the modern sector are not strong. Informal urban incomes exceed those of subsistence agriculture, but are not necessarily contributing to rising productivity.

Henderson et al. (2016) have pointed out that developed countries who underwent structural transformation one hundred to two hundred years ago, did so at a time when transportation costs were still high, and thus local demand gave rise to local production. At present, lower transport costs and globalized production have landed cheap consumer goods at everyone's door, limiting the need for local production. As Fox et al (2013) and others have observed, current demographic trends indicate that the modern sector in Africa will not be able to absorb the migration out of agriculture for decades to come. Thus informality plays an important role in present-day structural transformation, not only in absorbing the bulk of transitioning workers, but also in providing clues as to why modernization is not keeping pace and where policy can be most constructive.

Many of the pertinent issues come under the domain of governance and economic management. West African governments have not been successful in providing for reliable infrastructure at reasonable prices. The sagas of several network utilities provide abundant evidence that rent-seeking interferes with service delivery. In the capital markets, poor contract enforcement leads to high borrowing costs. Similarly, Government acts as the gatekeeper to formal, legal operations of firms in their countries, and this leads to high formal wages and stagnation of formal manufacturing. It also leads to a kind of dual regulatory regime where formal firms follow formal rules and informal firms, unable to meet these standards, are only partially regulated. Some institutional arrangements are designed specifically to accommodate informal firms, such as the presumptive tax regime that is practiced in most Francophone

African countries. However, loose enforcement of accounting standards and lax cross-checking across different agencies lead to abundant abuses of these regimes (See Benjamin and Mbaye, RDE 2012). In particular, large informal firms with high revenues find ways to pay minimal taxes under the lower presumptive tax regime.

Even so, the informal economy still has collective needs that are not served by the formal regime. Health insurance and pensions are particularly lacking. Certification of qualifications for workers is a problem, especially in construction. Lagging certification of standards for services is also a barrier to modernization, as observed in the ITC sector.

The informal economy carries the advantages of allowing open entry, and providing opportunities for those with little education and no capital. However, this open entry generates large numbers of firms operating at low productivity, with ownership or management structures that resist modern systems. Even the large and sophisticated informal firms, close in productivity to formal firms, still tend to operate like family firms in ways that keep them below the efficiency levels of their formal counterparts.

Recommendations

While the characteristics of the informal economy can help point up some weak links in the modernization process, it can also indicate points of entry where policy can help raise the returns to factors operating in the sector, the largest employer in the Francophone African economies. The most direct approach is to raise the capacity of informal workers, including basic education and some vocational training. Training in business management for SMEs has a decidedly more mixed record, but in certain targeted instances, such as ITC, it could help.

Policy should focus rather on the large informal firms. These already have the capacity to function like formal firms, and a more rule-based regulatory enforcement could bring them into the base of formal firms and formal tax-payers. It is highly difficult for any government to implement a solid development strategy when most major players are allowed to operate outside the system. Stricter rules should also apply to government officials involved in public or private businesses.

Between the large informal firms that could be formalized and the micro-enterprises that need basic assistance, there is a large segment of firms that are not close to being able to follow formal rules, but that still need public goods and collective services. Important aspects of these firms' performance -- productivity, profitability, employment, longevity -- can be improved along the informality spectrum, without restricting either policy or results to a simple formal-informal dichotomy. While all of these aspects of firm performance are important, the issues of productivity and employment have the greatest social impact. For these firms, policy should focus less on registration and taxes and more on what inhibits modernization and access to the benefits of modernity.

When presented with the option of being formal or informal, these semi-informal firms hardly have a choice. And yet surveys and interviews tell us that there are many intermediate bargains they would be willing to make. While firms want better governance and better public services, governments want better tax compliance (as do compliant tax-paying firms). A public-private bargain can enhance both public performance and private participation in the formal regulatory regime, including contributions to public finances. The dialogue on this mutual need for reform must include broad participation from the informal economy and not be confined to constituents focused on defending the status quo.

Most informal firms would be willing to pay a little more in public contributions if they could be guaranteed an increase in public services. Where trust in the public sector is low, Government may need to make the first move. The specific services that small informal businesses request vary across locations and across sectors, so there remains an important task of learning about the type of public service improvements most sought by informal firms and workers.

Morocco, for example, has launched a public program that subsidizes social insurance for informal workers. While Government ends up with the bill for the social insurance, it encourages informal workers to formally register, so at least the Government knows about them.

In the capital markets, it is important to recognize that most formal credit instruments do not match the high-risk nature of informal businesses, hence the weak response to micro-credit programs and the stronger preference for more personal sources of financing. The high-risk character of informal business income and their inability to forfeit collateral need to be taken into account when finding ways to increase access to credit.

Finally, governments need to re-examine the structure of protected rents and wages. The relative incentives of productivity growth versus rent capture need to be rebalanced. Structural transformation in the current globalized economy requires a new view of how developing countries can provide a welcome environment for modernizing forces while ensuring the welfare of its informal workers.

Prospects

The informal economy has, and will continue to have a substantial role in structural transformation in Africa. But while it continues to absorb workers migrating out of low-productivity agriculture, it will also limit the potential for growth and productivity until modernizing forces exert more influence. The large or sophisticated firms can be expected to formalize as governments are more systematic in ensuring the benefits to those that do so. Formal wages may continue to decline toward per capita GDP, and this might make more African locations competitive for international grade manufactures. But regardless, governments should focus on improving the regulatory environment for non-retail services, including ITC, as these sectors can make important contributions to modernization. Experience in providing public services to the middle layer of informal businesses and their workers should improve their civic participation and generate efficiencies from extending the coverage of the regulatory framework. However, institutions that restrict allocations of rents will need to be checked to avoid counteracting modernization.

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